

AMENDMENTS TO THE CLAIMS

Claims 1-41

42. (New) A method of identifying an agent that is capable of modulating an activity of RPTPB, the method comprising:

- (a) contacting a test agent with a transgenic mouse comprising a homozygous disruption in the RPTPB gene;
- (b) contacting the agent with a wild-type control mouse;
- (c) comparing a physiological response of the transgenic mouse with that of the control mouse, wherein said physiological response is a change in survival rate, rate of lethality, vascular development or hematopoiesis;
- (d) wherein a difference in the physiological response between the transgenic mouse and the control mouse is an indication that the agent is capable of modulating activity of RPTPB.

43. (New) A method of identifying an agent that is capable of modulating expression of a RPTPB gene, the method comprising:

- (a) contacting a test agent with a transgenic mouse comprising a homozygous disruption in the RPTPB gene;
- (b) contacting the agent with a wild-type control mouse;
- (c) comparing a physiological response of the transgenic mouse with that of the control mouse, wherein said physiological response is a change in survival rate, rate of lethality, vascular development or hematopoiesis;
- (d) wherein a difference in the physiological response between the transgenic mouse and the control mouse is an indication that the agent is capable of modulating expression of a RPTPB gene.

44. (New) A method of identifying an agent that is capable of modulating a phenotype selected from the group consisting of a developmental abnormality, increased incidence of lethality, reduced vascular development or reduced hematopoiesis, the method comprising:

- (a) contacting a test agent with a transgenic mouse comprising a homozygous disruption in the RPTPB gene;
- (b) contacting the agent with a wild-type control mouse;

- (c) comparing a physiological response of the transgenic mouse with that of the control mouse, wherein said physiological response is a change in development, vascular development, hematopoiesis or incidence of lethality;
- (d) wherein a difference in the physiological response between the transgenic mouse and the control mouse is an indication that the agent is capable of modulating said phenotype.

- 45. (New) The method of claim 44 wherein the phenotype is a developmental abnormality.
- 46. (New) The method of claim 44 wherein the phenotype is increased incidence of lethality.
- 47. (New) The method of claim 46 wherein the increase incidence of lethality occurs during embryonic development.
- 48. (New) The method of claim 47 wherein the increased incidence of lethality occurs at about embryonic day 9.5 to 10.5.
- 49. (New) The method of claim 44 wherein the phenotype is reduced vascular development.
- 50. (New) The method of claim 44 wherein the phenotype is reduced hematopoiesis.